

Mobile Mind Mapping: Enhancing Rational Emotive Behavior Therapy  
through Mobile Technology

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### **Abstract**

Counseling and technology intersect in many ways. Email, chat rooms, and websites, for example, are used frequently in counseling. Now, smartphones and smartphone applications can also be used during the counseling process. Mobile mind mapping tools can serve ancillary roles to counseling frameworks, such as Rational Emotive Behavior Therapy (REBT). This integration of counseling and technology has great possibilities for assisting clients in leading healthier and more productive lives. This article outlines four ways mobile mind maps can be utilized during REBT. An overview of REBT is provided with tips for counselors interested in utilizing mobile mind mapping to enhance the counseling process. The article concludes with a brief case study demonstrating the integration of mobile mind maps in counseling.

*Keywords:* rational emotive behavior therapy, technology, smartphones, mind maps

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The use of technology in counseling is now more evident than ever. Professional counselors are utilizing web-based portfolios (Barnes, Clark, & Thull, 2003), distance learning tools (Berry, Srebalus, Cromer, & Takacs, 2003), computer-based supervision (Watson, 2003), and computer-based career counseling programs (Kuo & Srebalus, 2003). Counselors are providing services via email, chat rooms, and social media such as Second Life. The number of Internet-based counseling services is growing exceedingly fast (Alleman, 2002; Haberstroh, 2009; Mallen, Vogel, & Rochlen, 2005).

While now serving as a medium through which counseling services are provided, technology can also be used as an ancillary. Technology has the potential to complement counseling theory and practice. For example, Stuhlmiller and Tolchard (2009) identified several Cognitive Behavior Therapy (CBT) computer-based programs (i.e., Beating the Blues, Fear Fighter, and MoodGYM) available to mental health professionals for use when treating clients suffering from anxiety and depression. These programs offer affordability and accessibility while enhancing the counseling process. Counselors in schools are also utilizing the Internet, email, and text messages to enhance the counseling process and relay information to students and parents (Landry, 2008).

A study conducted by McDaniel, Wolskee, and Shen (2009) found counseling in conjunction with a hand-held, self-monitoring apparatus and internet communication was effective in treating obese adults. Furthermore, telephone counseling utilizing Motivational Interviewing and Social Cognitive Theory was found to decrease unhealthy behaviors of clients

with chronic conditions (Lawler, et al., 2010).

Rational-Emotive Behavior Therapy (REBT; Ellis, 1962) appears especially adaptable when integrating various forms of technology during counseling. For example, Ross (2006) developed an on-line version of the REBT self-help form (Dryden & Walker, 1992) for clients to access and utilize. This form allows clients to independently complete the self-help form with guidance from pop-ups that include directions and definitions. Clients have the ability to print the results and process them with the counselor during their following session.

Warren (2009) created an interactive website that allows clients (children and adolescents) to immerse themselves in the REBT philosophy. The website is based on a group of animals called the Rational Instincts. These animals are presented in various adverse situations. Clients can respond to questions related to the scenarios by typing in the text boxes provided. The responses can be submitted directly to the counselor for review. The website also contains numerous songs that encourage rational living.

Warren (2010) suggested Second Life® was a tool applicable in REBT. Second Life® was developed by Linden Lab, a privately owned Internet company (Linden Research, Inc., n.d.) Counselors can use Second Life® during the treatment of anxiety or when addressing issues such as low frustration tolerance and self-worth (Warren, 2010). For example, counselors may encourage clients struggling with social anxiety to communicate with others through Second Life®. Clients can use their Second Life® avatar to desensitize themselves from interaction and communication with others (Warren, 2010).

The use of technology in counseling will continue to evolve as technological advances continue. Laptops and netbooks are smaller and feature increased memory and storage capacity

and added functionality. Tablet computers and smartphones make accessing the Internet and unlimited applications easier than ever. Smartphones specifically allow users to remain connected to technology during all facets of life. Counselors can continue to search for ways to enhance counseling processes through technology, specifically hand-held devices such as smartphones.

This article seeks to provide the reader with a rationale for counselors and clients utilizing mobile mind mapping as an ancillary to REBT. An overview of REBT provides a framework for the application of portable mind mapping. A synopsis of mobile mind mapping is also presented. Four uses for mobile mind maps in REBT are discussed. Tips for counselors implementing mobile mind mapping in REBT are also provided. A brief case study is presented to demonstrate the utility of mobile mind maps in REBT. The article's conclusion challenges the reader to explore other uses for smartphone applications in counseling.

### **Rational Emotive Behavior Therapy**

REBT evolved in the mid 1950s as a result of Albert Ellis's dissatisfaction with other forms of therapy. Ellis (1962) based REBT on the premise that people are not disturbed by things, but the views they take of them. Ellis (1962, 1975, 1991, 2003) posited that in the midst of adverse events (A), people tend to think irrationally, though they do not have to. Thoughts or beliefs (B) about adverse events ultimately lead to consequences (C), either helpful or unhelpful (Ellis & MacLaren, 2005). This ABC model is the main impetus of REBT.

According to Backx (2003), most cognitive behavioral therapies focus on disputing perceptions (i.e., an individual's view of reality) instead of the imperative cognitions. However, REBT asserts that individuals are not disturbed by perceptions alone. Imperative thoughts or

irrational beliefs about the perceptions lead to emotional disturbance (Dryden & Branch, 2008). Irrational beliefs are considered to be rigid, dogmatic inferences accompanied by exaggerated evaluations (Dryden, 2009; Ellis, 2003). For example, “She should not treat me that way and it's terrible when she does,” is an example of an irrational belief. Irrational beliefs often contain words such as “should” or “must” and one of three evaluations (Ellis & MacLaren, 2005). Examples of these evaluations include, “I can't stand it,” “It's terrible,” or “I'm worthless.” Irrational beliefs frequently lead to unhelpful negative emotions such as anger, depression, or anxiety (Dryden, 2009; Ellis, 2003). When these emotions are experienced, people tend to respond in unhelpful ways. For instance, someone experiencing anger may punch a hole in the wall while anxiety may lead to avoidance of a task.

REBT strives to assist individuals in thinking rationally. Rational beliefs are considered to be flexible and preferential (Dryden, 2009; Ellis, 2003). Thoughts containing language such as, “I'd prefer,” “I wish,” or “I'd like to” are frequently rational in nature. Rational thoughts lead to healthy negative emotions such as concern or bother (Ellis & MacLaren, 2005). When these emotions are experienced instead of anxiety or anger, helpful behaviors are more likely to occur. For example, the thought, “I wish she wouldn't treat me this way, but I can handle it,” would likely lead to bother, instead of anger. In turn, the behavioral response may involve talking in a calm manner.

REBT utilizes many different strategies and techniques to promote a preferential philosophy of life. The REBT framework provides numerous behavioral, emotive, and cognitive techniques. Examples of behavioral techniques include in vivo desensitization, operant conditioning, and relaxation training (Ellis & MacLaren, 2005). Rational Emotive Imagery,

shame-attacking exercises, and humor are several popular emotive techniques (Ellis & Wilde, 2002). Cognitive techniques largely involve various forms of challenges to faulty thinking. Rational coping statements, stopping and monitoring thoughts and feelings, or the self-help form (Dryden & Walker, 1992) are valuable in creating cognitive awareness and disputing irrational beliefs (Ellis & MacLaren, 2005). These cognitive techniques appear to lend themselves most readily to Internet and phone applications. With this potential intersection of counseling and technology, clients will be equipped to “be their own therapist,” a mantra of REBT.

### **Mobile Mind Mapping**

Mind maps have been used for centuries, however, Dr. Allan Collins is considered by many, to be the father of modern mind mapping (Nada, Kholief, Tawfik, & Metwally, 2009). Modern mind mapping evolved from the work of Collins and Quillian (1969) on semantic networks. In attempts to organize various semantic concepts, Collins and Quillian (1969) created pictorial representations or tree-like structures. These structures led to the modern-day mind map. Mind maps are tools that use words, lines, and symbols to organize and graphically represent information (Mind Mapping, 2010). Nada, et al. (2009) referred to mind mapping as a visual learning technique that enhances thinking. Individuals can use mind maps to solve problems and record or recall information. Research findings on mind map users have found enhancements in motivation (Holland, Holland, & Davies, 2004), increases in critical thinking (Michelini, 2006), and improvements in memory (Evrekliya, Balim, & Inela, 2009; Toi, 2009).

Mind maps can be drawn with paper and pencil or created with mind mapping computer applications. Recent advances in communication technology have also led to mind mapping accessibility via mobile devices such as smartphones. Smartphones are mobile phones that offer

advanced features such as Internet access and an operating system for application use. There are many mind mapping applications available for smartphones. SimpleMind, Mindberry, and Thinking Space are three popular mind mapping applications (Strohmeyer, 2011). While this article does not endorse the use of any particular mind mapping application, Thinking Space is used to demonstrate functionality when developing mind maps during REBT.

Thinking Space was developed by C. Chilton of Kinesthetic LTD (personal communication, June 13, 2011). Thinking Space is a mind mapping application for smartphones that house the Android operating system (Kinesthetic LTD, 2011). Once downloaded, users can typically begin mind mapping immediately and with little effort. Users can add nodes and sub-nodes of information as needed. The style, size, and text-color of the nodes can be modified. Users can also add notes for each node. Icons and hyperlinks can be embedded in the mind map nodes. Users can create relationships between nodes by drawing arrows from one to another. Nodes can also be rearranged as the mind map develops. These features are typical, with slight variations, of most mobile mind mapping applications.

As with other mind mapping applications, Thinking Space (Kinesthetic LTD, 2011), can be used to organize ideas, collect data, and assist in the recall of valuable information. Due to accessibility, portability, and ease of use, counselors can use mobile mind mapping applications to assist clients. Several applications of mind maps in REBT are outlined below.

### **Mobile Mind Mapping in REBT**

Mobile mind maps have the potential to enhance the treatment of clients engaged in REBT. A major goal of REBT is to encourage clients to become their own therapist (Dryden, 2005). Clients can use mobile mind mapping in several ways during daily living. Clients can



utilize mobile mind mapping to implement the ABC Model during adverse situations or immediately after they have occurred. Clients can also use mobile mind mapping to develop, store, and readily access a database of rational thoughts. Mobile mind mapping can also be used to record experiences when clients are facing adverse events. Counselors and clients can also use mobile mind mapping to identify cognitive themes across adverse events.

Several prerequisites should be met prior to recommending mobile mind mapping techniques to clients. First, clients should be motivated to engage in the counseling process and to work towards change. Also, a basic understanding of REBT is necessary to complete these tasks with mobile mind maps. Therefore, it is recommended that counselors introduce these techniques after the ABC model has been presented and discussed. In order to successfully complete these tasks, clients need to have access to a smartphone and a general interest utilizing it to complete REBT-related tasks. Furthermore, clients need to be aware that mobile mind mapping techniques are recommended only to supplement the counseling process and are not intended to replace it. If clients meet these requisites, they may find utility in the mobile mind mapping tasks below. However, as with any counseling technique or strategy, it is important to ensure clients are prepared for a mobile mind mapping task and informed of its intent.

### **ABC Exercises**

Counselors often recommend that clients complete ABC exercises as homework assignments during the course of REBT, or ask them to complete the exercises after adverse events have occurred. This is an opportunity for clients to use mobile mind maps. For example, clients can begin ABC Mind Mapping exercises in Thinking Space (Kinesthetic LTD, 2011) by selecting “New MindMap” from the main screen. Then, clients are prompted to create a title

node (A) for the MindMap or adverse event they are analyzing. Clients can create additional nodes to represent the emotional and behavioral consequences (C) and beliefs (B) as extensions of the title node (Figure 1). Clients can also add nodes to dispute irrational beliefs (D), create new rational alternatives (E), and identify new healthier negative emotions (F).

**Tip #1: Make mind mapping easy.** Clients may benefit from an example or demonstration of how mobile mind mapping tools can be used to complete ABC exercises. These demonstrations can occur during or at the conclusion of a session. Counselors can also support their clients as they begin to attempt ABC mind mapping exercises. For example, counselors can provide clients with generic outlines of questions, prompts, or the self-help form (Dryden & Walker, 1992). These items can serve as references for clients as they complete ABC exercises.

### **Stop, Monitor, and Record**

Counselors that utilize the REBT framework when working with clients often rely on subjective experiences to drive the treatment process. Counselors can provide the most appropriate treatment when clearly understanding the client's reality (Heppner, et al., 1994). However, at times, counselors may inaccurately assess the client's perceptions of adverse events, thoughts, and emotions. Counselors can recommend that clients use mobile mind mapping applications to self-report *in vivo*. Stop, monitor, and record (SMR) allows counselors to assess clients' thoughts and feelings throughout the day and week. Counselors may also suggest SMR in an effort to foster and develop clients' awareness of irrational thoughts and feelings. This strategy may serve as a prerequisite to clients challenging irrational thinking and completing ABC exercises.

From the main screen of Thinking Space (Kinesthetic LTD, 2011), clients can be instructed to create separate mind maps: one titled, “Thoughts” and one titled, “Feelings.” During or immediately after adverse situations, clients can record specific thoughts related to events by accessing the “Thoughts” mind map and creating additional nodes (Figure 2). Each node can include a thought. Clients can return to the main screen of Thinking Space (Kinesthetic LTD, 2011) and access the “Feeling” mind map. In this mind map, clients can record the feelings associated with adverse situations (Figure 3). The information recorded in each mind map can be presented to the counselor during the next scheduled counseling session. These mind maps can provide counselors with clear pictures of clients' experiences in daily living and bring about self-awareness.

**Tip #2: Provide emotional and cognitive education.** When clients describe situations, thoughts and feelings are often used interchangeably. For example, a client may say, “I felt like he should not have treated me that way.” In REBT, appropriate identification of thoughts and feelings is very important. Counselors can assist clients in differentiating between these two constructs prior to recommending the stop and monitor technique. However, when completing this mobile mind mapping exercise, encourage client's to focus on the recording of their thoughts and feelings, not whether they are correctly identifying them.

### **Rational Reviews**

REBT encourages clients to practice thinking in rational ways. Counselors can encourage clients to utilize mobile mind mapping applications to support their efforts in thinking rationally. Clients can develop databases of rational thoughts in mobile mind mapping applications. Counselors can recommend that clients refer to these databases throughout the day.

By frequently reviewing rational statements, clients can develop more preferential philosophies of life. The databases of rational thoughts can also be used to complete other mind mapping tasks such as ABC exercises.

In Thinking Space (Kinesthetic LTD, 2011), from the main screen, clients can create a new mind map. This mind map can be titled, “Rational Thoughts” (Figure 4). Clients can begin the mind map by adding nodes that contain generic rational thoughts such as “I'd like to get my way but I don't have to.” Clients can access and rehearse these rational thoughts throughout the week. Additional nodes containing rational thoughts can be added at any time to further enhance the relevance of the database to life events.

**Tip #3: Demonstrate how to craft a rational thought.** Rational thoughts can be difficult to construct for clients new to REBT. Clients often need clear guidance and prompting when forming rational alternatives to irrational thoughts. Demonstrate how to create flexible statements that negate clients' original beliefs. For example, “I would like to get my way, but I don't have to,” is a general rational thought that dismisses the demand. In session, counselors can assist clients in developing a mind map containing examples of rational thoughts. Clients can refer to these examples when constructing and adding personal rational thoughts to databases.

### **Identification of Themes**

In REBT, counselors frequently look for life themes that may hinder clients' well-being and level of functioning. Counselors and clients can work together to explore possible themes by analyzing the mind maps developed in REBT. Mind maps created during ABC exercises and SMR can be brought to sessions or emailed to the counselor. By analyzing the thought content

within these mind maps, clients can identify common core beliefs across various adverse situations. For example, core beliefs or life themes such as, “I’m worthless” or “life is terrible” may appear throughout the mind maps. Over time, clients can witness changes in cognitive structuring and assess progress. These types of tangible discoveries can be quite therapeutic for clients.

**Tip #4: Encourage diligence.** It is important for clients to understand the ultimate goal of REBT: to develop a rational philosophy of life. Clients will quickly reap the benefits of REBT if they remain diligent and invested in the process. Encourage clients to utilize and save their mobile mind mapping efforts frequently. Counselors can work closely with clients to analyze isolated irrational thoughts and move towards developing broader rational philosophies of self, others, and life.

### **The Furious Freshman: An Illustrative Case**

Tonya, a freshman in college, noticed that since a recent break-up she easily and frequently becomes angry. She entered into counseling almost two months ago. Her counselor has utilized an integrative counseling approach comprising REBT, solution-focused counseling, and person-centered approach. Tonya is highly motivated and completes the homework assignments she and the counselor negotiate during each session. Tonya and her counselor have established a solid therapeutic relationship. Through the counseling process, the counselor has learned that Tonya is tech-savvy, and has a smartphone. She also has a basic understanding of the ABC model and has used the self-help form (Dryden & Walker, 1992) on several occasions to address the anger she experiences.

During one counseling session, the counselor explored Tonya's thoughts related to

utilizing her smartphone to support her efforts in the counseling process. Tonya indicated the idea seemed novel and she was interested. The counselor recommended that Tonya explore various mobile mind mapping applications, select one, and learn basic functionality prior to the next counseling session. Tonya returned the following week excited, with her smartphone and downloaded mobile mind mapping application. She indicated that she viewed a tutorial and created a basic mind map a few days prior.

Based on the current goals and direction of treatment, the counselor introduced Tonya to rational reviews. Tonya and the counselor reviewed the differences between rational and irrational thoughts. The counselor provided a few examples of rational thoughts and prompted Tonya to create her own.

In a previous session, Tonya noted that when she thinks she is treated with disrespect, she becomes very angry. She identified the irrational belief that leads to anger as, "People should treat me with respect and I can't stand it when they don't!" Using the mind mapping tool during the current session, she created a rational review to challenge this imperative cognition. Tonya titled her rational review "RESPECT IS NICE, not needed!" She included several rational statements in the database including: (a) "Disrespect is bad, but it is far from terrible!" (b) "I don't like being disrespected, but I can handle it!" (c) "I would like to be treated with respect, but it is not required!" and (d) "Disrespect does not equal end of the world!" The counselor encouraged Tonya to review these rational thoughts throughout each day (i.e. waiting in line, before class, during meals, on the bus, etc.).

Tonya returned to counseling the following session indicating she reviewed the rational thoughts several times each day. She reviewed the rational thoughts so frequently she had

memorized them. She also stated that she had created several other rational reviews with the mobile mind mapping application. Most importantly, she indicated that she had reduced the intensity of her anger towards others who show disrespect.

To assess the degree to which Tonya had internalized the rational thoughts she rehearsed, the counselor recommended SMR. The counselor asked Tonya to stop, monitor, and record her thoughts in a mind map several times each day. Tonya returned to counseling the following week with copies of the SMR mind maps. The counselor and Tonya analyzed the mind maps and attempted to identify cognitive themes. The mind map revealed that Tonya still slightly struggled when she perceived others to not treat her with respect. Over the course of a week, 9 out of 35 recorded thoughts were irrational in nature.

The counselor encouraged Tonya to continue the SMR exercise over the next week. Because Tonya had excelled in utilizing mobile mind mapping and had previous experience with the self-help form, the counselor also suggested that she begin ABC exercises. Tonya agreed to complete an ABC exercise for each irrational thought she recorded.

Over the next two weeks, Tonya continued to report improvements in daily living. She indicated SMR continued to heighten her awareness of thoughts and feelings. Additionally, the ABC exercises Tonya completed provided her with a structured means for challenging irrational beliefs. As the counseling relationship moved toward termination, the counselor encouraged Tonya to continue utilizing the mobile mind mapping application to explore and challenge irrational thoughts. As a result of consistent participation during each counseling session along with her willingness to complete mobile mind mapping tasks, Tonya was able to overcome demands she placed on others and to develop a more preferential philosophy of life.

### **Conclusion**

As technology becomes more accessible and mobile devices continue to advance, counselors need to consider utilizing applications that have the potential to assist clients in addressing social-emotional issues. Although research is needed regarding the most effective use of technology and various mobile applications, mobile mind mapping applications appear to provide an accessible format for delivering established counseling practices. This article outlines four ways counselors can incorporate mobile mind mapping during the REBT process. While this article presents mobile mind mapping as an adjunct to REBT, other counseling models or paradigms (i.e. solution-focused counseling, narrative therapy, gestalt, etc.) may find utility in mind maps as well. In time, it is likely that more smartphone applications will be developed that can be used to enhance the counseling process.



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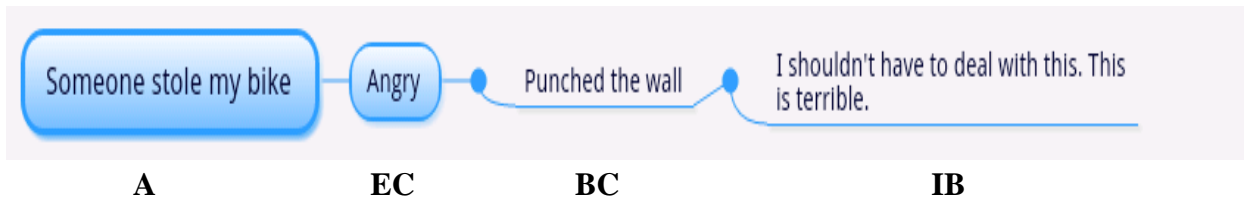


Figure 1. Mind Map of ABC Model. A = Activating Event. EC = Emotional Consequence. BC = Behavioral Consequence. IB = Irrational Belief.

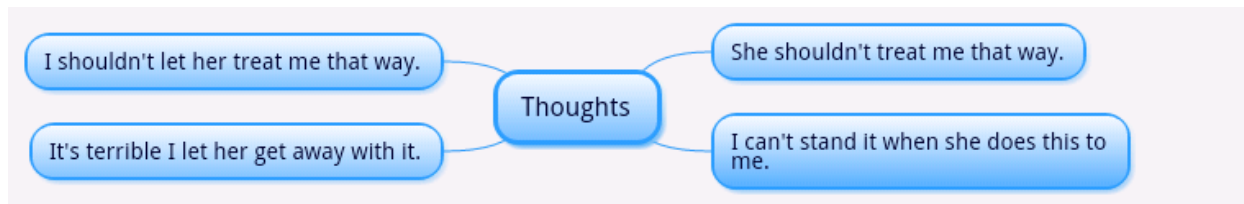


Figure 2. Thoughts Related to a Specific Event

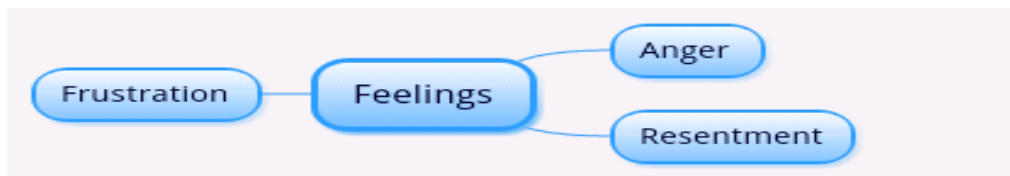


Figure 3. Feelings Related to a Specific Event



Figure 4. Rational Thoughts Database